addressing overfishing and stock rebuilding

PHOTO: PIFSC

The U.S. fishing industry experienced unprecedented expansion in the 20 years between 1976, when fisheries mandates were first created, and 1996 when Congress overhauled those mandates to adapt to a new emphasis on sustainable fisheries. This expansion resulted in record fish harvests and a new national concern: overfishing. One of the primary goals of marine fisheries managers is to prevent overfishing, a term used to describe when fish are harvested faster than they can reproduce.

For decades, many believed we could not over-harvest ocean resources. Also, marine science could not keep pace with the burgeoning industry. Lack of scientific justification to limit fishing and lack of a national mandate to prevent overfishing resulted in rapid expansion of the fishing industry between 1976 and 1996. By the 1990's, advanced technology allowed fishing vessels to harvest more quickly and efficiently, and fleets experienced growth beyond sustainable levels. Overfishing is one cause for the depletion of many important fish stocks. The term "overfished" is used to describe this depletion.

In 1996, Congress updated the original Magnuson Fishery Conservation and Management Act of 1976 when it passed the Sustainable Fisheries Act. This new Act, called the Magnuson-Stevens Act, required the eight regional fishery management councils and NOAA Fisheries Service to end overfishing, to develop rebuilding plans for depleted (or overfished) stocks, to address bycatch and to identify and protect marine habitats that are essential to fish reproduction and growth.

Nearly 10 years after the passage of the Sustainable Fisheries Act, stock rebuilding progress shows a positive trend, signaling that many once-depleted stocks are recovering. Rebuilding plans are in place for overfished stocks, many already have been rebuilt and others are now being harvested in a sustainable manner. Today, when a fish stock is newly declared as overfished, the regional councils develop rebuilding goals, timeframes, and regulations to slow harvest rates so the stock can recover to healthy, sustainable levels.

The fishing boom years of the 1970's and 80's may be a thing of the past, but just as sustainable management is a national priority and goal, so is preservation of the historic and cultural tradition of fishing. Though fisheries have experienced tightened restrictions in recent years to allow depleted stocks to recover, the industry is still big business.

overfishing and stock rebuilding

In 2003 Americans spent $61.2 billion on fishery products and commercial fishing supported 135,000 jobs. Marine recreational fishing supports nearly 350,000 jobs and generates $30.5 billion annually. Fishing creates local jobs, supports the economies of coastal communities, provides healthy fresh food for Americans and provides the opportunity to enjoy the nation's top outdoor recreational sport.

For these reasons, Congress mandated NOAA and the regional councils to consider community impacts when designing fishery management strategies. Social and economic impact assessments ensure that conservation is achieved without unduly impacting coastal communities and fishing families, or taking recreational opportunities away from the country's 17 million saltwater anglers. As with any renewable natural resource, the goal is to harvest without jeopardizing the long-term existence of the fish and the fishermen. Sometimes that balance is difficult to achieve, given the complex scientific and financial variables involved with assessing and monitoring the state of fish stocks, and the often lengthy regulatory process.

Policymakers, scientists, fishermen and environmentalists continue the national debate to ensure sustainable fish harvests as Congress proceeds with plans to update the goals and mandates of the Magnuson-Stevens Act.

key concepts and controversies

Fish Stocks With Unknown Status

Each year, NOAA releases a report on the status of more then 900 fish stocks under federal management. The status is either "overfished," "not overfished," or "unknown." Currently, 267 stocks are harvested for commercial sale and are called "major" stocks. The major stocks are considered most vulnerable to overfishing, and therefore are assessed on a regular basis to determine if they are overfished.

The status of the 541 stocks that are not assessed are deemed "unknown," causing concern for many environmental groups. In 2001, NOAA analysts estimated it would cost $91 million in staff time alone to evaluate all the stocks. The "minor" stocks have value in an ecosystem context, and Congress is considering options to overcome the limitations of stock assessments. One option might be to group stocks into assemblages and assess one species as an indicator for the status of others.

Rebuilding Timeframes

The Sustainable Fisheries Act mandates that overfished stocks be rebuilt within 10 years whenever it is biologically feasible. Some species mature later than others and are not prolific spawners, requiring a longer period to respond to rebuilding programs. Various groups have differing opinions on how to interpret the 10-year mandate, and Congress

story ideas

is making efforts to clarify this. In the meantime, the Magnuson-Stevens Act allows some flexibility in the rebuilding time period, given biological and community factors.

Bycatch

Working to reduce bycatch, a term used to describe untargeted species that inadvertently get caught by fishermen, has been a priority for fisheries managers for the past two decades. The regional councils and NOAA have made progress in reducing bycatch through a national strategy and various fishery management measures, including closures and fishing gear modifications. Some have differing opinions on how to go about reducing bycatch and whether or not the current plan is achieving quick enough results.

Overcapacity

When too many fishermen participate in a given fishery, the outcome can be problematic for the resource, the market and fishermen. Overcapacity exacerbates overfishing, gear conflicts and market gluts, and leads to greater fishing restrictions. NOAA and the regional councils have responded to overcapacity through limited entry programs that reduce capacity through attrition, buy-back programs and more recently through the use of individual fishing quota programs.

Environmental: Is it eco-friendly for consumers to eat species that are overfished?

- The media often incorrectly interchanges the term "overfished" with "threatened" or "endangered." If a fish stock is listed under the Endangered Species Act as "threatened" or "endangered," directed harvest and sale is prohibited. The government says it is okay to eat overfished species as long as they are legally harvested, because they are managed and rebuilding. Some groups advise consumers to avoid eating overfished species.
- Adding to the debate is a movement in Congress to mandate NOAA to report whether a stock's overfished status was due to fishing, and to change the term "overfished" to "depleted" in order to clarify that a low fish population does not necessarily mean that overfishing caused the decline.

Science: Overfishing stories are typically covered by environmental or government beat reporters, but rarely by science writers. Yet, science of all types (biological, social, economic) drives fisheries management.

- What limitations exist in marine science, and how are scientists overcoming these challenges?
- What kind of marine science is conducted in your community or region? How is this science helping to restore and protect the marine environment?
- What scientific factors lead to overfishing, and why is this problem difficult to solve?
- How can science help fisheries managers transition from single-species management to a holistic, ecosystem approach?

(continued on back cover)

information

conference participants
overfishing/stock rebuilding workshop

Dr. Grant Thompson (Moderator)
Alaska Fisheries Science Center, Seattle, WA
541-737-9318, grant.thompson@noaa.gov

Dan Cohen
Atlantic Cape Fisheries, commercial scallop fisherman, Cape May, NJ
609-884-3000, dcohen@atlanticcapes.com

Paul Dalzell
Western Pacific Fishery Management Council Senior Scientist, Honolulu, HI
808-522-6042, paul.dalzell@noaa.gov

Sonja Fordham
The Ocean Conservancy, Washington, DC
202-429-5609,
sfordham@oceanconservancy.org

James Martin
Pure Fishing, Mulino, OR
503-632-4270; jmartin@purefishing.org

Dr. Terry Quinn
University of Alaska, Fairbanks, AK
907-465-5389, fftjq@UAF.edu

For more information about this conference topic

Diana Stram (Staff Assistant)
North Pacific Fishery Management Council
Anchorage, AK
907-271-2809, diana.stram@noaa.gov

Richard Methot (Rapporteur)
NOAA Fisheries Service, Seattle WA
206 -860-3365, richard.methot@noaa.gov

story ideas

Business: The media rarely examine the business of fishing and seafood consumption, but these factors play a key role in how fishing is regulated. While past decades of overfishing have led to depleted stocks in every region of the nation, government officials report that rebuilding plans are in place and doing their job to bring fish stocks back.

- What fisheries have economic significance to the local economy through small business revenue, expenditures, and jobs?
- What regulations are in place to sustain fisheries, and how are local rebuilding plans working?
- What are the projected rebuilding timeframes for these stocks and how will rebuilding increase the fisheries' value?

Lifestyle & Local Interest: Often described as more a "way of life" than a profession, fishing is a tradition that is handed down from generation to generation.

- On a local level, what fishing industries are thriving, and which ones are struggling? What is the history of these fisheries? How are fishermen adapting to stricter fishing regulations as stocks rebuild?
- What is the state of the fisheries that support the local economy? Are the stocks improving from past overfishing? Are local citizens involved and active participants in fisheries management, and how is this involvement or lack thereof impacting them? Where and how are healthy stocks being managed, and what is the effect on local fishermen and the economy?